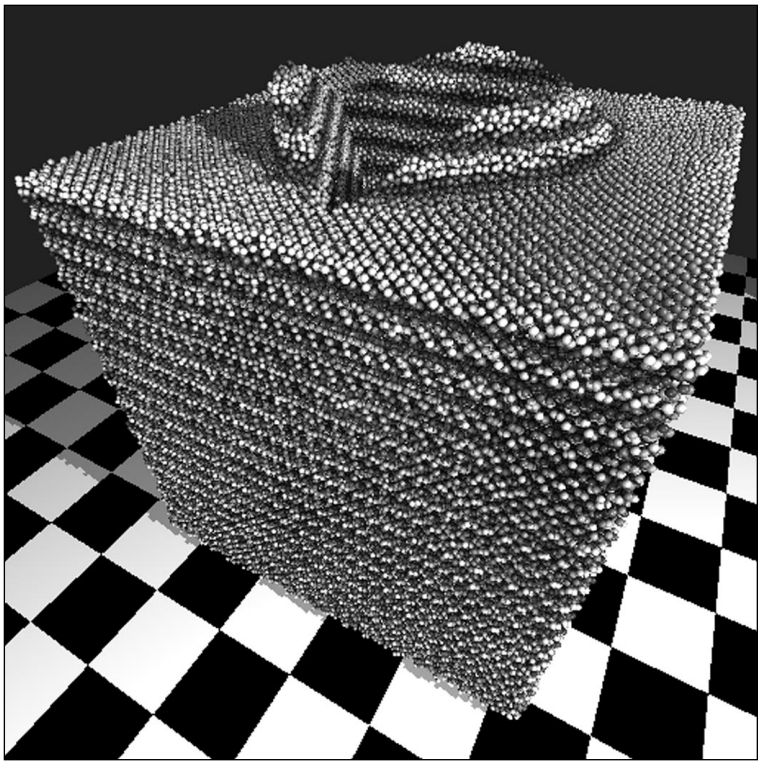
SPRINT-3

Massively parallel supercomputing for low-cost, high-performance solutions

SPRINT-3, a next-generation, massively parallel supercomputer, offers solutions for computing applications where low-cost, high-performance computing is an issue. SPRINT-3 outperforms single processor supercomputers for many important problems that require real-time data acquisition, analysis and control, or highly graphical interactive solutions. Applications include scientific modeling and visualization, remote sensing, and computer-aided engineering. SPRINT-3 technology can be used to construct portable, low-cost multiprocesssors for real-time applications. For some applications, SPRINT's performance will be several gigaflops.



This figure shows a simulation of silicon indentation performed by SPRINT-2. The spheres represent silicon atoms. Spheres are colored according to depth. A single-CPU Cray-Y/MP requires a month to simulate the indentation. SPRINT-2 performed the same simulation in 27 days.

More about SPRINT

SPRINT-3 will include 256 of the latest generation microprocessors connected by a high-performance interconnection network with ultrafast dist I/O. SPRINT-3 will be a Multiple Instruction Multiple Data (MIMD) distributed-memory supercomputer using message passing for interprocessor communication and does not have shared memory. A Sparcstation running Unix will be the host for SPRINT-3. Parallel Fortran and C programs will run on SPRINT-3, with Unix system calls served by the Sparcstation. Spacesharing—several users working simultaneously—will be available.

Availability: Available now.

APPLICATIONS

- *Climate modeling*
- *Neural network simulations*
- *2-D and 3-D reconstruction for nondestructive evaluation*
- *Image processing for biomedical studies*
- *Computational requirements of human genome studies*

Contact

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